

# **ANTI-STATIC SHEET OF EMBOSSED MATERIAL AND METHODS OF MAKING AND USING SAME**

## **CROSS REFERENCE TO RELATED APPLICATIONS**

**[0001A]** This application is a continuation of U.S. Serial No. 09/851,184, filed May 8, 2001, entitled "ANTI-STATIC SHEET OF EMBOSSED MATERIAL AND METHODS OF MAKING AND USING SAME," the contents of all of which is hereby expressly incorporated herein in its entirety by reference.

## **STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT**

**[0001]** Not applicable.

## **BACKGROUND**

### **1. FIELD OF THE INVENTION**

**[0002]** The present invention relates to polymeric materials having a texture and appearance simulating the texture and appearance of paper, and more particularly but not by way of limitation, to preformed, shape-sustaining flower pot covers, flower pot and floral wrappings, and ribbon materials made from such polymeric materials.

**[0003]** More particularly, but not by way of limitation, the present invention further relates in general to an anti-static sheet of embossed material having a texture and appearance simulating the texture and appearance of paper and methods of making and using same. Furthermore, but also not being limited thereto, the present invention relates to an anti-static sheet of embossed

material that has an anti-static coating composition applied thereon. This anti-static coating composition generally includes a surfactant, a pH neutralizing agent, and water. The anti-static sheet of embossed material having a texture and appearance simulating the texture and appearance of paper may be used to wrap floral grouping, fabricate a pre-formed flower pot cover, and/or sleeves for use in the floral industry. In one aspect, the present invention relates to methods for producing preformed, shape-sustaining flower pot covers and methods of wrapping floral groupings and flower pots with the sheet of anti-static embossed material having a texture and appearance simulating the texture and appearance of paper to provide a decorative cover for such floral groupings and flower pots.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0004]** Fig. 1 is a perspective view of an anti-static sheet of embossed polymeric material having a texture and appearance simulating paper constructed in accordance with the present invention, one corner being upwardly turned.

**[0005]** Fig. 2 is a perspective view of the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig. 1 having a bonding material disposed along one edge thereof one corner being upwardly turned.

**[0006]** Fig. 3 is a perspective view of the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig. 2 having a floral grouping disposed thereon.

**[0007]** Fig. 4 is a perspective view of the floral grouping of Fig. 3 being wrapped with the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig. 2 by one method of wrapping.

**[0008]** Fig. 5 is a perspective view of a decorative cover for the floral grouping formed from the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig. 2 wherein the decorative cover formed from the sheet of polymeric material has a conical configuration.

**[0009]** Fig. 6 is a perspective view of a decorative cover for the floral grouping formed from the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig. 2 wherein the decorative cover has a substantially cylindrical configuration.

**[0010]** Fig. 7 is a perspective view of a decorative cover positioned about a flower pot wherein the decorative cover is formed from the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper of Fig.1.

**[0011]** Fig. 8 is a cross-sectional view of a flower pot cover former and band applicator apparatus having the anti-static sheet of embossed polymeric

material having a texture and appearance simulating paper of Fig. 1 disposed above an opening of the flower pot cover former and band applicator and having a flower pot disposed above the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper.

**[0012]** Fig. 9A is a perspective view of an anti-static sheet of expanded core embossed polymeric film having a texture and appearance simulating paper wherein an acrylic heat sealable lacquer is disposed on at least one surface thereof one corner being upwardly turned.

**[0013]** Fig. 9B is a perspective view of a laminated anti-static sheet of embossed material wherein one surface is modified or textured to provide the sheet of laminated material with a texture and appearance simulating paper one corner being upwardly turned.

**[0014]** Fig. 10 is a perspective view of a preformed pot cover formed from an anti-static sheet of embossed polymeric material having a texture and appearance simulating paper.

**[0015]** Fig. 11 is a perspective view of the preformed pot cover of Fig. 10 having a flower pot disposed therein.

**[0016]** Fig. 12 is a diagrammatic, cross-sectional view of a male and female mold having an anti-static sheet of embossed polymeric material having a texture and appearance simulating paper disposed therebetween for forming the preformed pot cover of Fig. 10.

**[0017]** Fig. 13 is a perspective view of a floral sleeve formed from the anti-static sheet of embossed polymeric material having a texture and appearance simulating paper.

**[0018]** Fig. 14 is a perspective view of the floral sleeve of Fig. 13 disposed about a floral grouping.

**[0019]** Fig. 15 is a perspective view of a floral sleeve having a cinching member wherein the floral sleeve is formed from an anti-static sheet of embossed polymeric material having a texture and appearance simulating paper.

**[0020]** Fig. 16 is a perspective view of the floral sleeve of Fig. 15 disposed about a floral grouping.

**[0021]** Fig. 17 is an elevated view of a sleeve having a detachable portion wherein the sleeve is formed from an anti-static sheet of embossed polymeric material having a texture and appearance simulating paper.

**[0022]** Fig. 18 is a perspective view of the sleeve of Fig. 17 having a flower pot disposed therein.

**[0023]** Fig. 19 is a perspective view of a flower pot disposed in the sleeve of Fig. 17 wherein an upper portion of the sleeve has been removed to provide a decorative cover having a skirt.

**[0024]** Fig. 20A is a perspective view of an anti-static embossed polymeric ribbon material having a texture and appearance simulating paper.

**[0025]** Fig. 20B is a perspective view of a polymeric ribbon material formed of an anti-static expanded core of embossed polymeric film having a texture and appearance simulating paper.

**[0026]** Fig. 20C is a perspective view of an anti-static laminated embossed polymeric ribbon wherein at least one surface of the anti-static laminated embossed polymeric ribbon is modified or textured to provide the anti-static laminated embossed polymeric ribbon with a texture and appearance simulating paper.

#### Detailed Description

**[0027]** Before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments or of being practiced or carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein is for purpose of description and should not be regarded as limiting.

#### Description of Figures 1-9

**[0028]** Referring now to Figs. 1 and 2, designated generally by the reference numeral 10 is an anti-static sheet or web of embossed polymeric material having a texture and appearance simulating paper (hereinafter

referred to as the anti-static sheet of embossed polymeric material 10 or the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper). That is, at least one surface of the anti-static sheet of embossed polymeric material 10 has been modified to provide a matte or textured finish simulating the texture and appearance of paper. The term "texture and appearance simulating paper" may be used interchangeably herein with the terms "matte or textured finish simulating the texture and appearance of paper" and "texture and appearance simulating the texture and appearance of paper".

**[0029]** The modification of the anti-static sheet of embossed polymeric material 10 to provide the anti-static sheet of embossed polymeric material 10 with a matte or textured finish simulating paper in texture and appearance can be accomplished in several ways. For example, a matte finish can be provided by printing a desired pattern on the anti-static sheet of embossed polymeric material 10 and thereafter laminating a matte material, such as a translucent polymeric film, over the printed pattern. To further enhance the texture and appearance simulating paper of the anti-static sheet of embossed polymeric material 10, the matte material may or may not have a plurality of spatially disposed holes extending therethrough. A matte or textured finish can also be produced by printing an anti-static sheet of embossed polymeric material 10 with a matted (i.e. dull finish) ink, by lacquering at least one surface of the anti-

static sheet of embossed polymeric material 10 with a dull finish lacquer or a matting lacquer, by embossing the anti-static sheet of embossed polymeric material 10 to provide an embossed pattern simulating the weave or texture of paper, or by embossing and printing the anti-static sheet of embossed polymeric material to provide embossed and printed patterns wherein the embossed and printed patterns may be in registry, out of registry, or wherein a portion of the embossed and printed patterns are in registry and a portion of the embossed and printed patterns are out of registry.

**[0030]** The anti-static sheet of embossed polymeric material 10 gains its anti-static properties by having anti-static coating 12 applied to at least one of an upper surface 14 or a lower surface 16 thereof. In one embodiment, the coating 12 includes an anti-static surfactant, an anti-static pH neutralizing agent, and an amount of water. It is contemplated that the surfactant may be poly(oxy-1, 2-ethane diyl), alpha-tripezyl-oneza-hydroxy phosphate. However, one of ordinary skill in the art, would appreciate that the surfactant may be any chemical substance generally having "surfactant-like" qualities - i.e. a substance capable of reducing the surface tension of a liquid in which it is dissolved, such as what is known in the art as "wetting agents" or a "surface active agent". In one embodiment, the amount of surfactant in the coating 12 is from about 8% to 100%. In a preferred embodiment the amount of surfactant in the coating 12 is from about 8% to about 85% by weight of the coating 12. In a more

preferred embodiment the amount of surfactant in the coating 12 is from about 8% to about 15% by weight of the coating 12. The coating 12 also includes an effective amount of water as a wetting agent and an effective amount of a pH neutralizing agent which is capable of adjusting the pH of the coating 12 to about 7.0.

**[0031]** In a preferred embodiment, the pH neutralizing agent may be water. In this embodiment, the surfactant in coating 12 will have a pH of about 7.0 and thus a pH neutralizing agent is not necessary. Hence, the coating 12 will only include a surfactant and water. It is also contemplated that the pH neutralizing agent may be an acid, such as acetic acid, or a base, such as sodium hydroxide. One of ordinary skill in the art will recognize that the choice of pH neutralizing agent will depend upon the pH of the surfactant in solution. For example, if the surfactant is slightly acidic in solution, a base such as sodium hydroxide would be added in order to bring the pH of the coating to about 7.0. A matte or textured finish capable of providing the anti-static sheet of embossed polymeric material 10 with a texture and appearance simulating paper can also be achieved by extruding a polymeric resin onto a matted or textured chill roll or by laminating a second sheet of material to the sheet anti-static of embossed polymeric material 10. A matte or textured finish capable of providing the anti-static sheet of embossed polymeric material 10 with a

texture and appearance simulating paper can also be achieved through the use of selected pigments, such as  $\text{TiO}_2$ .

**[0032]** The anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper having the upper surface 14, the lower surface 16, also has an outer peripheral edge 18. At least one surface of the anti-static sheet of embossed polymeric material 10, such as the lower surface 16, is matted or textured as described above to provide the anti-static sheet of embossed polymeric material 10 with a texture and appearance simulating paper. The outer peripheral edge 18 of the anti-static sheet of embossed polymeric material 10 comprises a first side 20, a second side 22, a third side 24, and a fourth side 26. A bonding material 27 (Fig. 2) may be disposed on at least a portion of one or both of the upper and lower surfaces 14 and 16 of the anti-static sheet of embossed polymeric material 10, such as the upper surface 14 thereof as shown in Fig. 2 and as further illustrated in U.S. Patent No. 5,181,364, the specification of which is hereby expressly incorporated herein by reference in its entirety.

**[0033]** The anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper may be employed to provide a decorative cover for a floral grouping (Figs. 3 through 6) or a decorative cover for a flower pot (Fig. 7); to form a preformed flower pot cover for covering a flower pot (Figs. 10 and 11); to provide a sleeve for wrapping or covering a

floral grouping (Figs. 13 through 16) or a flower pot (Figs. 17 through 19); or to provide a ribbon material Figs. 20A through 20C). The use of the anti-static sheet of embossed polymeric material 10 to form a decorative cover for a floral grouping or a flower pot wherein the decorative cover is provided with a texture and appearance simulating the texture and appearance of paper, or to form a sleeve for a floral grouping or a flower pot wherein the sleeve is provided with a texture and appearance simulating the texture and appearance of paper, or to form a preformed flower pot cover having a texture and appearance simulating the texture and appearance of paper, or as a ribbon material having a texture and appearance simulating the texture and appearance of paper will be described in more complete detail herein below.

**[0034]** As noted above, the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper can be utilized to form a decorative cover for a floral grouping or a flower pot. The term "flower pot" as used herein refers to any type of container for holding a floral grouping, or a plant, or even another pot-type container. Examples of flower pots and/or pot-type containers include, but are not limited to, clay pots, wooden pots, plastic pots, pots made from natural and/or synthetic fibers, or any combination thereof. Such flower pots and/or pot-type containers are provided with a retaining space for receiving a floral grouping. The floral grouping may be disposed within the retaining space of the

flower pot with a suitable growing medium described in further detail below, or other retaining medium, such as a floral foam. It will also be understood that in some cases the floral grouping, and any appropriate growing medium or other retaining medium, may be disposed in a sleeve formed from the anti-static sheet of embossed polymeric material 10 if the sleeve is adapted to contain a medium.

**[0035]** "Floral grouping" as used herein means cut fresh flowers, artificial flowers, a single flower or other fresh and/or artificial plants or other floral materials and may include other secondary plants and/or ornamentation or artificial or natural materials which add to the aesthetics of the overall floral grouping. Further, the floral grouping may comprise a growing potted plant having a root portion as well. However, it will be appreciated that the floral grouping may consist of only a single bloom or only foliage, or a botanical item (not shown), or a propagule. The term "floral grouping" may be used interchangeably herein with the term "floral arrangement". The term "floral grouping" may also be used interchangeably herein with the terms "botanical item" and/or "propagule."

**[0036]** The term "growing medium" when used herein means any liquid, solid or gaseous material used for plant growth or for the cultivation of propagules, including organic and inorganic materials such as soil, humus, perlite, vermiculite, sand, water, and including the nutrients, fertilizers or

hormones or combinations thereof required by the plants or propagules for growth.

**[0037]** The term "botanical item" when used herein means a natural or artificial herbaceous or woody plant, taken singularly or in combination. The term "botanical item" also means any portion or portions of natural or artificial herbaceous or woody plants including stems, leaves, flowers, blossoms, buds, blooms, cones, or roots, taken singularly or in combination, or in groupings of such portions such as bouquets or floral groupings.

**[0038]** The term "propagule" when used herein means any structure capable of being propagated or acting as an agent of reproduction including seeds, shoots, stems, runners, tubers, plants, leaves, roots or spores.

**[0039]** In the embodiments shown in the drawings, the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper in texture and appearance is square. It will be appreciated, however, that the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper in texture and appearance can be of any shape, configuration or size as long as the anti-static sheet of embossed polymeric material 10 is sufficiently sized and shaped to wrap and encompass a floral grouping or a flower pot. For example, the anti-static sheet of embossed polymeric material 10 may have a rectangular, round, oval, octagonal or asymmetrical shape. Further, multiple anti-static sheets of the

embossed polymeric material 10 may be used in a single circumstance to provide a decorative cover or sleeve for a floral grouping or a flower pot. Moreover, when multiple anti-static sheets of the embossed polymeric material 10 having a texture and appearance simulating paper in texture and appearance are used in combination, the anti-static sheets of embossed polymeric material 10 need not be uniform in size or shape. Finally, it will be appreciated that the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper shown herein is a substantially flat sheet except for the texturing, matting, embossing, flocking, application of a foamable lacquer or foamable ink, or other treatments and techniques employed to provide the anti-static sheet of embossed polymeric material 10 with the desired texture or matting so that the sheet of polymeric material 10 has a texture and appearance simulating the texture and appearance of paper.

**[0040]** Any thickness or stiffness of the anti-static sheet of embossed polymeric material 10 may be utilized in accordance with the present invention as long as the anti-static sheet of embossed polymeric material 10 can be modified to provide the anti-static sheet of embossed polymeric material 10 with a texture and appearance simulating the texture and appearance of paper and the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper can be wrapped about at least a portion of a

floral grouping or a flower pot to form a decorative cover for the floral grouping or the flower pot, or formed into a preformed flower pot cover for covering a flower pot, or a sleeve for wrapping or covering a floral grouping or a flower pot, or to provide a ribbon material. Generally, the anti-static sheet of embossed polymeric material 10 will have a thickness of from about 0.1 mil to about 30 mil, and more desirably a thickness of from about 0.5 mil to about 10 mil.

**[0041]** The terms "polymer film", "polymeric film" and "polymeric material" when used herein means a synthetic polymer such as a polypropylene or polyethylene, a naturally occurring polymer such as cellophane, an extruded polymeric material having an expanded core such as extruded polypropylene having an expanded core and combinations thereof. The extruded polymeric material having an expanded core may also be referred to herein as an expanded core polymeric material.

**[0042]** "Extruded polymeric material having an expanded core" or "expanded core polymeric film" as used herein means any extrudable polymeric material or polymeric film in which the core is expanded during extrusion, such as by incorporation of a blowing agent in the polymeric resin which is being extruded.

**[0043]** A decorative cover for a floral grouping (Figs. 3 through 6), or a decorative cover for a flower pot (Fig. 7), or a preformed flower pot cover for

covering a flower pot (Figs. 10 and 11), or a sleeve for wrapping or covering a floral grouping (Figs. 13 through 16) or a flower pot (Figs. 17 through 19), or a ribbon material (Figs. 20A through 20C) may also be constructed of a laminated anti-static sheet of embossed material having a texture and appearance simulating paper in texture and appearance (as shown in Fig. 9B and described in more detail hereinafter). The laminated anti-static sheet of embossed material having a texture and appearance simulating the texture and appearance of paper can be produced by laminating two or more anti-static sheets of embossed polymeric film (such as two or more sheets of polypropylene film or a sheet of polypropylene film and a sheet of expanded core polymeric film, such as expanded core polypropylene film), or by laminating a polymeric film (such as polypropylene film or an expanded core polymeric film) to metallized foil and the like wherein at least one surface of the laminated anti-static sheet of embossed material is textured or modified to simulate the texture and appearance of paper.

**[0044]** The only requirements in using a laminated anti-static sheet of embossed material having a texture and appearance simulating paper in texture and appearance to form a decorative cover for a floral grouping, or a decorative cover for a flower pot, or a preformed flower pot cover for covering a flower pot, or a sleeve for wrapping or covering a floral grouping or a flower pot, or as ribbon material in accordance with the present invention is that at least one

surface of the laminated anti-static sheet of embossed material be capable of being modified to provide the laminated anti-static sheet of embossed material with at least one surface having a texture and appearance simulating the texture and appearance of paper and that the laminated anti-static sheet of embossed material be sufficiently flexible or pliable to permit the laminated anti-static sheet of embossed material to be formed into a decorative cover for a floral grouping, or a decorative cover for a flower pot, or a preformed flower pot cover for covering a flower pot, or a sleeve for wrapping or covering a floral grouping or a flower pot, or to be used as ribbon material. It should also be noted that two or more separate anti-static sheets of embossed polymeric material can be used to form a decorative cover for a floral grouping, or a decorative cover for a flower pot, or a preformed flower pot cover for covering a flower pot, or a sleeve for wrapping or covering a floral grouping or a flower pot as long as one of the anti-static sheets of embossed polymeric material is modified or textured to provide same with a texture and appearance simulating paper.

**[0045]** The anti-static sheet of embossed polymeric material 10 or a laminated anti-static sheet of embossed material (Fig. 9B) having a texture and appearance simulating the texture and appearance of paper may vary in color. Further, the anti-static sheet of embossed polymeric material 10 or a laminated anti-static sheet of embossed material may be provided with other decorative

patterns or designs in addition to the matting, texturing, flocking, application of lacquers or foamable inks, or embossing employed to impart a paper-like texture and appearance to the anti-static sheet of embossed polymeric material 10 or the laminated anti-static sheet of embossed material.

**[0046]** As illustrated in Fig. 3, the anti-static sheet of embossed polymeric material 10 has a width 30 extending generally between the first side 20 and the second side 22, respectively, and a length 32 extending between the third side 24 and the fourth side 26, respectively. The anti-static sheet of embossed polymeric material 10 is sufficiently sized so that the anti-static sheet of embossed polymeric material 10 extends over a substantial portion of the floral grouping or a flower pot when the anti-static sheet of embossed polymeric material 10 has been wrapped about the floral grouping in accordance with the present invention, as described in detail herein.

**[0047]** A plurality of anti-static sheets of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper may be connected together to form a roll as is shown in U.S. Patent No. 5,459,976, issued to Weder et al. on October 24, 1995, entitled "MATERIAL AND ADHESIVE STRIP DISPENSER", the specification of which is hereby expressly incorporated herein by reference in its entirety.

**[0048]** Figs. 3-5 illustrate the use of the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture

and appearance of paper for wrapping a floral grouping 34 to provide a decorative cover 36 having a texture and appearance simulating paper (Fig. 5) for the floral grouping 34 wherein the decorative cover 36 has an open upper end 38 and a lower end 40. The anti-static sheet of embossed polymeric material 10 is shown as having the strip of bonding material 27 disposed upon the upper surface 14 disposed substantially adjacent the fourth side 26 thereof substantially as shown in Figs. 3 and 4. Further, the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper can be provided either as an individual sheet or from a pad or roll of material.

**[0049]** The bonding material 27 may have a backing or release strip (not shown). The backing or release strip may be left applied for a period of time to the bonding material 27 after it is disposed on the surface of the anti-static sheet of embossed polymeric material 10 prior to its use as a wrapping material in order to protect the bonding qualities of the strip of bonding material 27.

**[0050]** In operation, an operator may dispose the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper on a support surface (not shown) whereby the lower surface 16 of the anti-static sheet of embossed polymeric material 10 (which has been modified to provide the anti-static sheet of embossed

polymeric material 10 with a texture and appearance simulating the texture and appearance of paper) contacts the support surface.

**[0051]** Referring more specifically to Figs. 3-5, the floral grouping 34 is placed upon the upper surface 14 of the anti-static sheet of embossed polymeric material 10 in a diagonal orientation. The floral grouping 34 has an upper bloom or foliage portion 42 and a lower stem portion 44.

**[0052]** The anti-static sheet of embossed polymeric material 10 is then wrapped about the floral grouping 34 by the operator (Figs. 4 and 5), with the operator overlapping a portion of the anti-static sheet of embossed polymeric material 10 over another portion of the anti-static sheet of embossed polymeric material 10. That is, for example, the operator places the first side 20 of the anti-static sheet of embossed polymeric material 10 over the floral grouping 34, as shown in Fig. 4. The operator continues to roll the floral grouping 34 and the anti-static sheet of embossed polymeric material 10 in the direction toward the second side 22 of the anti-static sheet of embossed polymeric material 10 until the upper surface 14 near the second side 22 firmly engages the lower surface 16 of the anti-static sheet of embossed polymeric material 10, wherein the floral grouping 34 is substantially encompassed by the anti-static sheet of embossed polymeric material 10, and wherein the bonding material 27 on the upper surface 14 contacts the lower surface 16 of the anti-static sheet of embossed polymeric material 10 to provide the decorative cover 36 having a

texture and appearance simulating the texture and appearance of paper which substantially encompasses and surrounds a substantial portion of the floral grouping 34.

**[0053]** Fig. 5 shows the floral grouping 34 wrapped in a conical fashion to provide the decorative cover 36 for the floral grouping 34 wherein the decorative cover 36 has a texture and appearance simulating paper. When the floral grouping 34 is wrapped in a conical fashion, the bloom portion 42 of the floral grouping 34 is exposed near the open upper end 38 of the decorative cover 36, and the stem portion 44 of the floral grouping 34 is exposed near the lower end 40 of the decorative cover 36.

**[0054]** In another embodiment, illustrated in Fig. 6, the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper in texture and appearance is utilized to wrap the floral grouping 34 in a cylindrical fashion. The floral grouping 34 is disposed upon the anti-static sheet of embossed polymeric material 10 approximately parallel to the fourth side 26 of the anti-static sheet of embossed polymeric material 10. The anti-static sheet of embossed polymeric material 10 is wrapped generally about the stem portion 44 of the floral grouping 34 to a position wherein the fourth side 26 of the anti-static sheet of embossed polymeric material 10 generally overlaps the third side 24 of the anti-static sheet of embossed polymeric material 10 in a cylindrical fashion. It should be noted that the anti-static sheet of embossed

polymeric material 10 may be wrapped a plurality of times about the stem portion 44 of the floral grouping 34 before the overlapping of the third side 24 and the fourth side 26 of the anti-static sheet of embossed polymeric material 10. As before, the portion of the anti-static sheet of embossed polymeric material 10 near the fourth side 26 is disposed generally adjacent another portion of the anti-static sheet of embossed polymeric material 10 and the two adjacent portions then are brought into contact where they may be bondingly engaged, thereby securing the anti-static sheet of embossed polymeric material 10 generally about the floral grouping 34 so as to provide a decorative cover 36a having a texture and appearance simulating paper for the floral grouping 34.

**[0055]** In another version of the invention, the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper may be used to wrap a flower pot or pot-type container, as noted above. Shown in Fig. 7 is a flower pot designated by the reference numeral 50 having an open upper end 52, a bottom end 54, an outer peripheral surface 56, and an inner retaining space 58 within which may be disposed a growing medium. The flower pot 50 may contain a botanical item, such as a plant 60, which has an upper portion 62 comprising blooms or foliage or both.

**[0056]** The anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper may be wrapped about the flower pot 50 by any one of numerous methods used to wrap sheets of material about flower pots to form decorative pot covers for flower pots, such as a decorative cover 61 having a texture and appearance simulating the texture and appearance of paper disposed about the flower pot 50 illustrated in Fig. 7: The anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating paper may, for example, be formed by hand about the outer peripheral surface 56 of the flower pot 50 to produce the decorative cover 61 which has the appearance of being fabricated of paper. The decorative cover 61 can then be secured about the flower pot 50 by a bonding material or by an elastic band 64 such that the open upper end 52 of the flower pot 50 remains substantially uncovered by the decorative cover 61 as shown in Fig. 7.

**[0057]** Referring now to Fig. 8, a flower pot cover former and band applicator device 66 for forming the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper into the decorative cover 61 for the flower pot 50 of Fig. 7 is illustrated. The flower pot cover former and band applicator device 66 comprises a band applicator 68 and a flower pot cover former 70. The flower pot cover former and band applicator device 66 has a support platform 72 with

an opening 74 formed therein. A band, such as the elastic band 64, is disposed circumferentially about the opening 74 in the support platform 72.

**[0058]** The lower surface 16 of the anti-static sheet of embossed polymeric material 10 (which has been modified to provide the anti-static sheet of embossed polymeric material 10 with a textured or matted surface simulating paper in appearance) is positioned on an upper surface 76 on the support platform 72 such that the anti-static sheet of embossed polymeric material 10 is positioned over the opening 74 in the support platform 72. The flower pot 50 is positioned above the anti-static sheet of embossed polymeric material 10 and is moved in a direction indicated by an arrow 78 into the opening 74 of the flower pot cover former and band applicator device 66. As the flower pot 50 is moved into the opening 74, the anti-static sheet of embossed polymeric material 10 is pressed about the outer peripheral surface 56 of the flower pot 50, thereby forming the decorative cover 61 having a texture and appearance simulating paper about the flower pot 50. The decorative cover 61, which has a texture and appearance assimilating the texture and appearance of paper, is then secured about the flower pot 50 by the elastic band 64. The flower pot 50 having the decorative cover 61 secured thereto is then moved in a direction indicated by the arrow 80 out of the opening 74 in the support platform 72.

**[0059]** The elastic band 64 can be applied manually or automatically, such as by the method shown in U.S. Patent No. 5,105,599, issued to Weder et al.

on April 21, 1992, which is hereby expressly incorporated herein by reference in its entirety. The band 64 can also be applied as a tie using a method such as is described in "Single Station Covering and Fastening System", U.S. Patent No. 5,609,009, issued to Weder et al. on March 11, 1997, the specification of which is hereby expressly incorporated herein by reference in its entirety. The anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper can also be applied automatically about the flower pot 50, for example, by methods shown in U.S. Patent Nos. 4,733,521 and 5,291,721, both of which are hereby expressly incorporated herein by reference in their entirety.

**[0060]** Instead of securing the decorative cover 61 about the flower pot 50 via the elastic band 64, the decorative cover 61 formed from the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper may be secured to the flower pot 50 by the use of one or more bonding materials. For example, the upper surface 14 of the sheet of polymeric material 10 may have a bonding material such as the bonding material 27 disposed upon a portion thereof. When the anti-static sheet of embossed polymeric material 10 is disposed about the flower pot 50, at least a portion of the upper surface 14 of the anti-static sheet of embossed polymeric material 10 contacts the outer peripheral surface 56 of

the flower pot 50 and is thereby bonded and held about the flower pot 50 via the bonding material 27.

**[0061]** The bonding material 27 may cover a portion of the upper surface 14 of the anti-static sheet of embossed polymeric material 10, or the bonding material 27 may entirely cover the upper surface 14 of the anti-static sheet of embossed polymeric material 10. The bonding material 27 may be disposed on the upper surface 14 of the anti-static sheet of embossed polymeric material 10 in the form of a strip or in the form of spaced-apart spots. One method for disposing a bonding material 27 on the anti-static sheet of embossed polymeric material 10 is described in U.S. Patent No. 5,111,637, entitled "Method For Wrapping A Floral Grouping", issued to Weder, et al. on May 12, 1992, which is expressly incorporated herein by reference in its entirety.

**[0062]** The term "bonding material" when used herein can mean an adhesive, frequently a pressure sensitive adhesive, or a cohesive or any adhesive/cohesive combination having adhesive qualities (i.e., qualities of adhesion or adhesion/cohesion, respectively) sufficient to cause the attachment of a portion of the sheet of polymeric material 10 to itself, to the floral grouping 34, or to the flower pot 50. Since the bonding material 27 may comprise either an adhesive or an adhesive/cohesive combination, it will be appreciated that both adhesives and cohesives are known in the art, and both are commercially available. When the bonding material 27 is a cohesive, a similar cohesive

material must be placed on the adjacent surface for bondingly contacting and bondingly engaging with the cohesive material.

**[0063]** The term "bonding material" also includes materials which are heat sealable and, in this instance, the adjacent portions of the material must be brought into contact and then heat must be applied to effect the seal. The term "bonding material" also includes materials which are sonically sealable and vibratory sealable. The term "bonding material" when used herein also means a heat sealing lacquer or hot melt material which may be applied to the material and, in this instance, heat, sound waves, or vibrations, also must be applied to effect the sealing.

**[0064]** The term "bonding material" when used herein also means any type of material or thing which can be used to effect the bonding or connecting of the two adjacent portions of the sheet of polymeric material 10 to effect the connection or bonding described herein. The term "bonding material" may also include ties, labels, bands, ribbons, strings, tapes (including single or double-sided adhesive tapes), staples or combinations thereof. Some of the bonding materials would secure the ends of the material while other bonding materials may bind the circumference of a wrapper, or a sleeve, or, alternatively and/or in addition, the bonding materials would secure overlapping folds in the material and/or sleeve. Another way to secure the anti-static sheet of embossed polymeric material 10 about the floral grouping 34 or the flower pot 50 is to

heat seal the ends of the material to another portion of the material. One way to do this is to contact the ends with an iron of sufficient heat to heat seal the material.

**[0065]** Alternatively, a cold seal adhesive may be utilized as the bonding material 27. The cold seal adhesive adheres only to a similar substrate, acting similarly as a cohesive, and binds only to itself. The cold seal adhesive, since it bonds only to a similar substrate, does not cause a residue to build up on equipment, thereby both permitting much more rapid disposition and use of such equipment to form articles and reducing labor costs. Further, since no heat is required to effect the seal, the dwell time, that is, the time for the sheet of material to form and retain the shape of an article, such as a flower pot cover or flower pot, is reduced. A cold seal adhesive binds quickly and easily with minimal pressure, and such a seal is not readily releasable. This characteristic is different from, for example, a pressure sensitive adhesive.

**[0066]** The term "bonding material" when used herein also means any heat or chemically shrinkable material, and static electrical or other electrical material, chemical welding material, magnetic material, mechanical or barb-type fastening material or clamps, curl-type characteristics of the film or materials incorporated in material which can cause the material to take on certain shapes, cling films, slots, grooves, shrinkable materials and bands, curl

materials, springs, and any type of welding method which may weld portions of the material to itself or to the pot, or to both the material itself and the pot.

Description of Figs. 9-12

**[0067]** Referring now to Figs. 10 and 11, a decorative preformed flower pot cover 110 is illustrated constructed from an anti-static sheet of embossed polymeric material 10 having at least one surface thereof textured or modified to provide the anti-static sheet of embossed polymeric material 10 with a texture and appearance simulating the texture and appearance of paper. The anti-static sheet of embossed polymeric material having a texture and appearance simulating the texture and appearance of paper is a flexible material such as the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper (Fig. 1), or an anti-static sheet of embossed flexible polymeric material 112 having a texture and appearance simulating the texture and appearance of paper (Fig. 9A) or a flexible laminated anti-static sheet of embossed material 112a having a texture and appearance simulating the texture and appearance of paper (Fig. 9B). In the embodiment shown in Fig. 9A, the anti-static sheet of embossed flexible polymeric material 112 having a texture and appearance simulating the texture and appearance of paper used in the construction of the decorative preformed flower pot cover 110 comprises an anti-static sheet of expanded core embossed polymeric material 114 having an upper surface 116, a lower surface

118 and a thickness in the range of from about 0.5 mil to about 10 mil, more desirably in the range of from about 0.6 mil to about 1.25 mil. The anti-static sheet of expanded core embossed polymeric material 114 is provided with a coating of an acrylic heat sealable lacquer 120 disposed on at least one of the upper and lower surfaces 116 and 118 thereof. It should be understood, however, that the anti-static sheet of flexible embossed polymeric material 112 is not limited to being the anti-static sheet of expanded core embossed polymeric film 114 having a texture and appearance simulating the texture and appearance of paper; rather, the anti-static sheet of flexible embossed polymeric material 112 can be any flexible polymeric material or flexible laminated material, such as the anti-static sheet of embossed polymeric material 10 or the anti-static sheet of embossed flexible laminated polymeric material 112a, which can be modified or textured so that at least one surface of such polymeric material or laminated material is provided with a finish or texture simulating paper in appearance.

**[0068]** As previously stated, the modification of the anti-static sheet of embossed polymeric material or anti-static sheet of laminated embossed polymeric material, such as the anti-static sheet of embossed polymeric material 10, the anti-static sheet of flexible laminated embossed polymeric material 112a, or the anti-static sheet of expanded core embossed polymeric film 114 to provide the anti-static sheet of flexible embossed material with the

desired matte or textured finish, can be accomplished by printing a desired pattern on the anti-static sheet of embossed polymeric material and thereafter laminating a matte material, such as a translucent polymeric film over the printed pattern.

**[0069]** To further enhance the texture and appearance of the anti-static sheet of embossed polymeric material so that the anti-static sheet of embossed polymeric material simulates the texture and appearance of paper, the matte material may or may not have a plurality of spatially disposed holes extending therethrough. A matte or textured finish can also be produced by printing the anti-static sheet of embossed polymeric material with a matted (i.e. dull finish) ink, by lacquering at least one surface of the sheet of polymeric material with a dull finish lacquer or a matting lacquer, by embossing the sheet of polymeric material to provide an embossed pattern simulating the texture and appearance of paper, or by embossing and printing the anti-static sheet of embossed polymeric material to provide embossed and printed patterns wherein the embossed and printed patterns may be in registry, out of registry, or wherein a portion of the embossed and printed patterns are in registry and a portion of the embossed and printed patterns are out of registry. In addition, a matte or textured finish capable of providing the anti-static sheet of flexible embossed polymeric material with a texture and appearance simulating the texture and appearance of paper can be achieved by extruding a polymeric resin onto a

matted or textured chill roll to produce the expanded core polymeric material, or by laminating a second anti-static sheet of embossed material to the anti-static sheet of embossed polymeric material, or by the use of selected pigments.

**[0070]** The anti-static sheet of flexible embossed polymeric material 112 (Fig. 9A) having a texture and appearance simulating the texture and appearance of paper may vary in color. Further, the anti-static sheet of embossed flexible polymeric material 112 may be provided with other decorative patterns or designs in addition to the matting, texturing, flocking, application of lacquers or foamable inks, or embossing employed to impart a texture and appearance simulating the texture and appearance of paper to the anti-static sheet of embossed flexible polymeric material 112.

**[0071]** When the anti-static sheet of embossed polymeric material, such as the anti-static sheet of flexible embossed polymeric material 112, is formed into the decorative preformed flower pot cover 110, a plurality of overlapping folds 122 are formed, and at least a portion of the overlapping folds 122 are connected to adjacently disposed portions of the decorative preformed flower pot cover 110 via the acrylic heat sealable lacquer 120.

**[0072]** As shown in Figs. 10 and 11, the decorative preformed pot cover 110 has an upper end 125, a lower end 126, and an outer peripheral surface 128. An opening 130 intersects the upper end 125, forming an inner peripheral

surface 132 which defines and encompasses a retaining space 133 within which a flower pot 134 containing a floral grouping 136 may be disposed in a manner well known in the art.

**[0073]** In another embodiment, an anti-static sheet of flexible embossed polymeric material 112a (Fig. 9B) is used in the construction of the decorative preformed flower pot cover 110. The anti-static sheet of flexible embossed polymeric material 112a is a laminated material which comprises a first anti-static sheet of embossed material 114a having an upper surface 116a and a lower surface 118a, and a second anti-static sheet of embossed material 120a. At least one surface of the first anti-static sheet of embossed material 114a or the second anti-static sheet of embossed material 120a is modified to provide the anti-static sheet of flexible embossed laminated polymeric material 112a with the desired texture and appearance simulating the texture and appearance of paper. The anti-static sheet of flexible embossed laminated polymeric material 112a having a texture and appearance simulating the texture and appearance of paper can be produced by laminating two or more anti-static sheets of embossed polymeric film (such as two or more sheets of polypropylene film or a sheet of polypropylene film and a sheet of expanded core polymeric film, such as expanded core polypropylene film), or by laminating a polymeric film (such as polypropylene film or an expanded core polymeric film) with a sheet of metallized foil and the like wherein at least one

surface of the anti-static sheet of flexible embossed laminated polymeric material 112a is textured or modified to simulate paper in appearance.

**[0074]** The first anti-static sheet of embossed material 114a desirably has a thickness of from about 0.5 mil to about 10 mil, and more desirably from about 0.6 mil to about 1.25 mil, and the second anti-static sheet of embossed material 120a desirably has a thickness of from about 0.5 mil to about 10 mil, and more desirably from about 0.6 mil to about 1.25 mils. The second anti-static sheet of embossed material 120a can be laminated to the first anti-static sheet of embossed material 114a with a colored adhesive so as to impart a desired color to the laminated anti-static sheet of flexible embossed polymeric material 112a. While the thickness of the anti-static sheet of flexible embossed laminated polymeric material 112a can vary widely and will generally depend on the thickness of the first anti-static sheet of embossed material 114a and the thickness of the second anti-static sheet of embossed material 120a, desirable results can be obtained where the anti-static sheet of flexible embossed laminated polymeric material 112a has a thickness in the range of from about 1 mil to about 20 mil, and more desirably from about 1.2 mil to about 2.5 mil.

**[0075]** As previously stated, the decorative preformed flower pot cover 110 may be constructed of the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of

paper (Fig. 1), or of the anti-static sheet of flexible embossed polymeric material 112 (Fig. 9A), or of the laminated anti-static sheet of flexible embossed polymeric material 112a (Fig. 9B). The decorative preformed flower pot cover 110 so formed will have a plurality of overlapping folds 122 formed therein, at least a portion thereof being connected. If desired, the decorative preformed flower pot cover 110 can be formed of a plurality of anti-static sheets of the same and/or different types of embossed polymeric material.

**[0076]** The method and apparatus employed to form the decorative preformed flower pot cover 110 having a texture and appearance of paper is substantially identical whether one uses one or more anti-static sheets of embossed polymeric material 10 (Fig. 1), or one or more anti-static sheets of flexible embossed polymeric material 112 (Fig. 9A), or one or more anti-static sheets of flexible laminated embossed polymeric material 112a (Fig. 9B), or a combination of such sheets of material. Thus, only the formation of the decorative preformed flower pot cover 110 having a texture and appearance of paper using the sheet of flexible polymeric material 112 of Fig. 9A will be described in detail hereinafter.

**[0077]** The decorative preformed flower pot cover 110 may be formed using a conventional mold system 140 comprising a male mold 142 and a female mold 144 having a mold cavity 146 for matingly receiving the male mold 142 (Fig. 12). The anti-static sheet of flexible embossed polymeric material

112 having a texture and appearance simulating the texture and appearance of paper is positioned between the male and female molds 142 and 144, respectively. Movement of the male mold 142 in the direction indicated by an arrow 148 and into the mold cavity 146 forces the anti-static sheet of flexible embossed polymeric material 112 to be disposed about the portion of the male mold 142 disposed in the mold cavity 146 of the female mold 144 and thereby forms the anti-static sheet of flexible embossed polymeric material 112 into the preformed decorative flower pot cover 110 having a texture and appearance simulating the texture and appearance of paper (Figs. 10 and 11). Further, in accordance with the present invention, the decorative preformed flower pot cover 110 constructed from the materials described herein above may have a bonding material disposed upon a portion thereof.

**[0078]** Methods for forming such preformed decorative pot covers are well known in the art. Two methods of forming such covers are described in U.S. Patent Nos. 4,773,182 and 5,291,721, each of which is expressly incorporated herein by reference in their entirety.

#### Description of Figs. 13-19

**[0079]** Shown in Fig. 13 is a decorative cover designated therein by the general reference numeral 160 which comprises a flexible bag or sleeve 162 of unitary construction having a texture and appearance simulating the texture and appearance of paper in accordance with the present invention. The sleeve

162 may be used as a decorative cover 160 for a floral grouping or a flower pot. The sleeve 162 initially comprises a flexible flat collapsed piece of anti-static polymeric embossed material which is openable in the form of a tube or sleeve. Such sleeves are well known in the floral industry. Further, in accordance with the present invention, the decorative cover 160 can be constructed of the anti-static sheet of flexible embossed polymeric material 10 (Fig. 1), or the anti-static sheet of flexible embossed polymeric material 112 (Fig. 9A), or the anti-static sheet of laminated flexible embossed polymeric material 112a (Fig. 9B) whereby at least a portion of one surface of the sleeve 162, preferably an outer peripheral surface 164 of the sleeve 162, has been modified to provide the sleeve 162 with a texture and appearance simulating the texture and appearance of paper, as previously described herein.

**[0080]** The sleeve 162 has an upper end 166, a lower end 168 and the outer peripheral surface 164. The sleeve 162 may be tapered outwardly from the lower end 168 toward a larger diameter at its upper end 166. In its flattened state the sleeve 162 generally has an overall trapezoidal or modified trapezoidal shape, and when opened is substantially frusto-conical in configuration. It will be appreciated, however, that the sleeve 162 may comprise variations on the aforementioned shapes or may comprise significantly altered shapes such as square or rectangular, wherein the sleeve 162 when opened has a cylindrical form, as long as the sleeve 162 functions in

accordance with the present invention in the manner described herein. The sleeve 162 (or any other sleeve disclosed herein) may have an angular or contoured shape.

**[0081]** The sleeve 162 has an opening 170 at the upper end 166 thereof and may be open at the lower end 168, or closed with a bottom at the lower end 168. The sleeve 162 also has an inner peripheral surface 172 which, when the sleeve 162 is opened, defines and encompasses an inner retaining space 174. When the lower end 168 of the sleeve 162 is closed, a portion of the lower end 168 may be inwardly folded to form one or more gussets (not shown) for allowing the lower portion of the inner retaining space 174 to be expandable, for example, for receiving the circular bottom of a pot or growing medium.

**[0082]** The sleeve 162 is generally frusto-conically shaped, but the sleeve 162 may be, by way of example but not by way of limitation, cylindrical, frusto-conical, a combination of both frusto-conical and cylindrical, or any other shape, as long as the sleeve 162 functions as described herein as noted above. Further, the sleeve 162 may comprise any shape, whether geometric, non-geometric, asymmetrical and/or fanciful, as long as it functions in accordance with the present invention. The sleeve 162 may also be equipped with drain holes (if having a closed bottom) or side ventilation holes (not shown), or can be made from gas permeable or impermeable materials.

**[0083]** The material from which the sleeve 162 is constructed is the same as previously described above for the anti-static sheet of embossed polymeric material 10 having a texture and appearance simulating the texture and appearance of paper, or the anti-static sheet of flexible embossed polymeric material 112 or 112a having a texture and appearance simulating paper. Any thickness of polymeric material may be utilized in accordance with the present invention as long as the sleeve 162 may be formed as described herein, is provided with a texture and appearance simulating the texture and appearance of paper, and as long as the formed sleeve 162 may contain at least a portion of a flower pot or a floral grouping, as described herein. Additionally, an insulating material such as bubble film, preferable as one of two or more layers, can be utilized in order to provide additional protection for the item, such as a floral grouping, contained therein.

**[0084]** In Fig. 14 the sleeve 162 is illustrated as having a texture and appearance simulating the texture and appearance of paper provided on the outer peripheral surface 164 of the sleeve 162. A floral grouping 176 is disposed within the inner retaining space 174 of the sleeve 162. Generally, an upper or bloom portion 178 of the floral grouping 176 is exposed near the opening 170 of the sleeve 162 and a lower or stem portion 180 of the floral grouping 176 is exposed near the lower end 168 of the sleeve 162. Either end of the sleeve 162 may be closed about the floral grouping 176. Generally, a

portion of the sleeve 162 is tightened about a portion of the stem portion 180 of the floral grouping 176 for holding the decorative cover 160 about the floral grouping 176. For example, the sleeve 162 may be held by a tie 182 tied about the sleeve 162, such as is shown in Fig. 14. Other methods for binding the sleeve 162 about the floral grouping 176 may be employed, such as the bonding materials described elsewhere herein. For example, as shown in Fig. 15, a decorative cover 160a is shown which comprises a sleeve 162a having a texture and appearance simulating the texture and appearance of paper and a cinching tab 184 having a bonding material 186 disposed upon a surface thereof. The cinching tab 184 can be used to gather portions of the sleeve 162a together about the stem portion 180 of the floral grouping 176 as shown in Fig. 16 for holding the sleeve 162a tightly about the floral grouping 176.

**[0085]** Similarly, it may generally be desired to use the sleeve 162 as a decorative cover for a flower pot, as will be described in further detail below. The flower pot will generally contain a botanical item or plant. The flower pot can be deposited into the open sleeve 162 in a manner well known in the art, such as manually wherein the sleeve 162 is opened by hand and the flower pot deposited therein.

**[0086]** As noted above, a bonding material may be disposed on a portion of the sleeve 162 or any sleeve described herein to assist in holding the sleeve 162 to the flower pot when the flower pot is disposed within the sleeve 162 or

to assist in closing the upper end 166 of the sleeve 162 or adhering the sleeve 162 to the flower pot after the flower pot has been disposed therein, as will be discussed in further detail below.

**[0087]** It will be understood that the bonding material, if present, may be disposed as a strip or block on a surface of the sleeve 162. The bonding material may also be disposed upon either the outer peripheral surface 164 or the inner peripheral surface 172 of the sleeve 162, as well as upon the flower pot. Further, the bonding material may be disposed as spots of bonding material, or in any other geometric, non-geometric, asymmetric, or fanciful form, and in any pattern, including covering either the entire inner peripheral surface 172 and/or outer peripheral surface 164 of the sleeve 162 and/or the flower pot. The bonding material may be covered by a cover or release strip which can be removed prior to the use of the sleeve 162 or flower pot. The bonding material can be applied by methods known to those of ordinary skill in their art. One method for disposing a bonding material, in this case an adhesive, is described in U.S. Patent No. 5,111,637, issued to Weder et al. on May 12, 1993, which is hereby expressly incorporated herein by reference in its entirety.

**[0088]** As noted above, a bonding material may be disposed on at least a portion of the inner peripheral surface 172 of the sleeve 162, or, alternatively, the bonding material may be disposed on the outer peripheral surface of a

flower pot contained within the sleeve 162 while the sleeve 162 may be free of the bonding material. In a further alternative, the bonding material may be disposed both on at least a portion of the flower pot as well as upon at least a portion of the inner peripheral surface 172 of the sleeve 162. In addition, a portion of the bonding material may also be disposed on the outer peripheral surface 164 of the sleeve 162 as well. It will be understood that the bonding material may be disposed in a solid section of bonding material. The bonding material, when present, is disposed on the sleeve 162 and/or flower pot by any method known in the art.

**[0089]** Certain versions of sleeves described herein may be used in combination with a preformed pot cover. For example, a preformed pot cover may be applied to the pot, then the covered pot wrapped or disposed within a sleeve. Either the cover or the sleeve, or both, have a texture and appearance simulating the texture and appearance of paper. Examples of sleeves which may be used in this invention are shown in the specification of U.S. Patent No. 5,625,979, issued to Weder on May 6, 1997, which is expressly incorporated herein by reference in its entirety. Equipment and devices for forming sleeves are commercially available, and well known in the art.

**[0090]** Shown in Figs. 17 and 18 is another embodiment of a decorative cover 160b comprising a sleeve 162b having a texture and appearance simulating the texture and appearance of paper constructed from the sheet of

polymeric material 10 or the anti-static sheet of flexible embossed polymeric material 112 or 112a in accordance with the present invention. The sleeve 162b has a "detaching" element in predetermined areas for detaching a portion of the sleeve 162b. The sleeve 162b generally initially comprises a flexible flat collapsed piece of material which is openable in the form of a tube or sleeve. The sleeve 162b is constructed of the same material and in the same way as the sleeve 162 described previously herein and may be described exactly the same as the sleeve 162 described herein except for the additional elements described hereinafter.

**[0091]** The sleeve 162b has an upper end 166b, a lower end 168b, and an outer peripheral surface 164b. The sleeve 162b has an opening 170b at the upper end 166b thereof, and the sleeve 162b may be open at the lower end 168b or closed with a bottom at the lower end 168b. In a flattened state, the sleeve 162b has a first side 171 and a second side 173. The sleeve 162b also has an inner peripheral surface 172b which, when the sleeve 162b is opened, defines and encompasses an inner retaining space 174b as shown in Fig. 18. When the lower end 168b of the sleeve 162b has a closed bottom, a portion of the lower end 168b may be inwardly folded to form one or more gussets (not shown) for permitting a circular bottom of an object such as a flower pot 187 to be disposed in the inner retaining space 174b of the lower end 168b of the sleeve 162b.

**[0092]** As shown in Figs. 17 and 18, the sleeve 162b is demarcated into an upper portion 188 and a lower portion 190. The lower portion 190 of the sleeve 162b is generally sized to contain the flower pot 187. The upper portion 188 of the sleeve 162b is sized to substantially surround and encompass a plant 192 contained in the flower pot 187 disposed within the lower portion 190 of the sleeve 162b. The sleeve 162b is demarcated into the upper portion 188 and the lower portion 190 by a detaching element 194 for enabling the detachment of the upper portion 188 of the sleeve 162b from the lower portion 190 of the sleeve 162b. In the present version, the detaching element 194 is a plurality of generally laterally-oriented or alternately diagonally-oriented perforations which extend circumferentially across the outer peripheral surface 164b of the sleeve 162b from the first side 171 to the second side 173.

**[0093]** In the embodiment shown in Figs. 17 and 18, the lower portion 190 of the sleeve 162b further comprises a base portion 196 and a skirt portion 198. The base portion 196 of the lower portion 190 of the sleeve 162b comprises that part of the lower portion 190 of the sleeve 162b which, when the flower pot 187 is placed into the lower portion 190 of the sleeve 162b, has an inner peripheral surface 172b which is substantially adjacent to and surrounds an outer peripheral surface 199 of the flower pot 187. The skirt portion 198 of the lower portion 190 of the sleeve 162b comprises that part of the lower portion 190 of the sleeve 162b which extends beyond an open upper

end 201 of the flower pot 187 and adjacent at least a portion of the plant 192 contained within the flower pot 187 and which is left to freely extend at an angle, inwardly or outwardly, from the base portion 196 when the upper portion 188 of the sleeve 162b is detached from the lower portion 190 of the sleeve 162b by actuation of the detaching element 194.

**[0094]** In the intact sleeve 162b, the skirt portion 198 of the sleeve 162b comprises an upper peripheral edge congruent with the detaching element 194 which is connected to a lower peripheral edge, also congruent with the detaching element 194, of the upper portion 188 of the sleeve 162b. In Figs. 17 and 18, the upper peripheral edge of the skirt portion 198 of the sleeve 162b is congruent with a series of alternately diagonally-oriented lines of perforations which together form a zig-zag and comprise the detaching element 194. The upper portion 188 of the sleeve 162b may also have an additional detaching element 200 indicated as a plurality of vertical perforations for facilitating removal of the upper portion 188 of the sleeve 162b and which are disposed more or less vertically therein extending between the detaching element 194 of the sleeve 162b and the upper end 166b of the sleeve 162b.

**[0095]** The upper portion 188 of the sleeve 162b is thereby separable from the lower portion 190 of the sleeve 162b by tearing the upper portion 188 along both the detaching element 200 and the detaching element 194, thereby separating the upper portion 188 from the lower portion 190 of the sleeve

162b. The lower portion 190 of the sleeve 162b remains disposed as the base portion 196 about the flower pot 187 and as the skirt portion 198 about the plant 192, forming a decorative cover 202, as shown in Fig. 19, which substantially surrounds and encompasses the flower pot 187 and the plant 192 contained therein. An outer peripheral surface 164b of the lower portion 190 of the sleeve 162b, for example, the base and skirt portions 196 and 198, may be modified to provide the lower portion 190 of the sleeve 162b with a texture and appearance simulating the texture and appearance of paper, while the upper portion 188 of the sleeve 162b is left unmodified or is printed with a design; or both the upper portion 188 and the lower portion 190 of the sleeve 162b may be provided with a modified or textured surface so that both the upper portion 188 and the lower portion 190 of the sleeve 162b is provided with a texture or appearance simulating paper. When the upper portion 188 of the sleeve 162b is detached, the lower portion 190 of the sleeve 162b remains disposed about the flower pot 187 and thereby forms the decorative cover 202 about the flower pot 187 which has the appearance of paper.

**[0096]** "Detaching element" as used herein means any element, or combination of elements, or features, such as, but not by way of limitation, perforations, tear strips, zippers, and any other devices or elements of this nature known in the art, or any combination thereof. Therefore, while perforations are shown and described in detail herein, it will be understood that

tear strips, zippers, or any other "detaching elements" known in the art, or any combination thereof, could be substituted therefor and/or used therewith.

**[0097]** In a general method of use of sleeve 162b as a decorative cover 202 for a flower pot, an operator provides the sleeve 162b and the flower pot 187 having a plant 192 disposed in a growing medium 203 contained within the flower pot 187. The operator then disposes the flower pot 176b having the plant 192 and the growing medium 203 contained therein into the sleeve 162b by opening the sleeve 162b at the upper end 166b thereof and assuring both that the opening 170b therein is in an open condition, and that the inner peripheral surface 172b of the sleeve 162b is somewhat expanded outward as well, as shown in Fig. 18. The operator then manually or automatically disposes the flower pot 187 into the opening 170b in the sleeve 162b, the flower pot 187 being disposed generally through the upper portion 188 of the sleeve 162b into generally the lower portion 190 of the sleeve 162b, the flower pot 187 remaining in the lower portion 190 of the sleeve 162b, permitting the sleeve 162b to substantially surround and tightly encompass the flower pot 187. It will be understood that alternatively, the sleeve 162b maybe provided with an extension (not shown), and the sleeve 162b may be disposed on rods or wickets, and the flower pot 187 may then be disposed in the sleeve 162b either before or after the sleeve 162b has been removed from the wickets.

### Embodiments of Figs. 20A-20C

**[0098]** Referring now to Fig. 20A, designated generally by the reference numeral 210 is a polymeric ribbon material having a texture and appearance simulating the texture and appearance of paper for forming decorative bows and for wrapping items. That is, at least one surface of an anti-static web of embossed polymeric material (not shown) is modified to provide a matte or textured finish 212 simulating the appearance of paper. The modification of the anti-static web of embossed polymeric material (not shown) to provide the polymeric ribbon material 210 with a matte or textured finish 212 simulating paper can be accomplished in several ways. For example, the polymeric ribbon material 210 having the matte or textured finish 212 can be produced by printing an anti-static web of embossed polymeric material with a matted (i.e. dull finish) ink, by lacquering at least one surface of the anti-static sheet of embossed polymeric material with a dull finish lacquer or a matting lacquer, by embossing the anti-static sheet of embossed polymeric material to provide an embossed pattern simulating the texture and appearance of paper, by flocking the anti-static sheet of embossed polymeric material, by application of a foamable lacquer or foamable ink to the anti-static sheet of embossed polymeric material, or by embossing and printing the anti-static sheet of embossed polymeric material to provide embossed and printed patterns, wherein the embossed and printed patterns may be in registry, out of registry,

or wherein a portion of the embossed and printed patterns are in registry and a portion of the embossed and printed patterns are out of registry. In addition, a matte or textured finish 212 capable of providing the anti-static sheet of embossed polymeric material with a texture and appearance simulating the texture and appearance of paper can be achieved by extruding a polymeric resin onto a matted or textured chill roll. Thereafter, the web of material having a texture and appearance simulating the texture and appearance of paper can be cut in a conventional manner to provide the polymeric ribbon material 210 having a texture and appearance simulating the texture and appearance of paper.

**[0099]** Any polymeric material capable of being textured or otherwise modified to provide the anti-static sheet of embossed polymeric material with a texture and appearance simulating the texture and appearance of paper can be employed in the formulation of the polymeric ribbon material 210. For example, the anti-static sheet of embossed polymeric material employed to produce the polymeric ribbon material 210 can be polypropylene film having a thickness of from about 0.1 mil to about 30 mil, and more desirably of from about 0.5 mil to about 10 mil, or an expanded core polymeric film having a thickness of from about 0.5 mil to about 10 mil.

**[0100]** Referring now to Fig. 20B, designated generally by the reference numeral 220 is another embodiment of an anti-static embossed polymeric

ribbon material for forming decorative bows and for wrapping items. The anti-static embossed polymeric ribbon material 220 is a laminated material comprising a first anti-static embossed web or anti-static sheet of embossed material 222 having a thickness of from about 0.5 mil to about 10 mil, and more desirably from about 0.6 mil to about 1.25 mil, and a second anti-static embossed web or anti-static sheet of embossed material 224 having a thickness of from about 0.5 mil to about 10 mil, and more desirably from about 0.6 mil to about 1.25 mil. The laminated material having a texture and appearance simulating the texture and appearance of paper can be produced by laminating two or more anti-static sheets of embossed polymeric film (such as two or more sheets of polypropylene film or a sheet of polypropylene film and a sheet of expanded core polymeric film, such as expanded core polypropylene film), or by laminating an anti-static embossed polymeric film (such as polypropylene film or an expanded core polymeric film) with a sheet of metallized foil and the like wherein at least one surface of the laminated material is textured or modified to simulate the texture and appearance of paper.

**[0101]** The second anti-static embossed web or anti-static sheet of embossed material 224 is desirably laminated to the first anti-static embossed web or anti-static sheet of embossed material 222 with a colored adhesive so as to impart a desired color to the polymeric ribbon material 220. If desired the polymeric ribbon material 220 may be treated or otherwise processed to

provide the polymeric ribbon material 220 with a matte or textured finish 226 simulating paper in appearance so that the polymeric ribbon material 220 has a paper-like appearance similar to the polymeric ribbon material 210 hereinbefore described with reference to Fig. 20A. That is, the matte or textured finish 226 simulating paper in texture and appearance can be printed on the first anti-static embossed web or anti-static sheet of embossed material 222, and thereafter the second anti-static embossed web or anti-static sheet of embossed material 224 (which in this case is desirably a matte material of translucent polymeric film) is laminated to the first anti-static embossed web or anti-static sheet of embossed material 222 to provide the polymeric ribbon material 220 with a texture and appearance simulating the texture and appearance of paper. To further enhance the texture and appearance simulating the texture and appearance of paper of the polymeric ribbon material 220, the second anti-static embossed web or anti-static sheet of embossed material 224 may or may not have a plurality of spatially disposed holes extending therethrough.

**[0102]** The matte or textured finish 226 can be produced by printing at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224 with a matted (i.e. dull finish) ink, by lacquering at least one surface of at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224 with

a dull finish lacquer or a matting lacquer, by flocking at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224, by application of a foamable lacquer or foamable ink to at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224, by embossing at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224 to provide an embossed pattern simulating the appearance and texture of paper, or by embossing and printing at least one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224 to provide embossed and printed patterns wherein the embossed and printed patterns may be in registry, out of registry or wherein a portion of the embossed and printed patterns are in registry and a portion of the embossed and printed patterns are out of registry. In addition, the matte or textured finish 226 capable of providing the polymeric ribbon material 220 with a texture and appearance simulating the texture and appearance of paper can be achieved by extruding the resin used to produce one of the first and second anti-static embossed webs or anti-static sheets of embossed material 222 and 224 onto a matted or textured chill roll.

**[0103]** Referring now to Fig. 20C, designated generally by the reference numeral 230 is another embodiment of a polymeric ribbon material for forming decorative bows and for wrapping items. The anti-static polymeric embossed

ribbon material 230 comprises an anti-static polymeric embossed film 232 having an upper surface 234, a lower surface 236. An acrylic heat sealable lacquer 238 can be applied to at least one of the upper and lower surfaces 234 and 236 of the anti-static polymeric embossed film 232, such as the lower surface 236 of the anti-static polymeric embossed film 232, and the upper surface 234 of the anti-static polymeric embossed film 232 is desirably modified to provide the anti-static polymeric embossed ribbon material 230 with a matte or textured finish 239 simulating the texture and appearance of paper. The modification of the anti-static polymeric embossed film 232 to provide the anti-static polymeric embossed ribbon material 230 with a texture and appearance simulating the texture and appearance of paper can be accomplished in several ways. For example, the anti-static polymeric embossed ribbon material 230 having the matte or textured finish 239 can be produced by printing the anti-static polymeric embossed film 232 with a matted (i.e. dull finish) ink, by lacquering at least one surface 234 or 236 of the anti-static polymeric embossed film 232 with a dull finish lacquer or a matting lacquer, by flocking the anti-static polymeric embossed film 232, by application of a foamable lacquer or foamable ink to the anti-static polymeric embossed film 232, by embossing the anti-static polymeric embossed film 232 to provide an embossed pattern simulating the texture and appearance of paper, or by embossing and printing the anti-static polymeric embossed film 232 to provide embossed and

printed patterns, wherein the embossed and printed patterns may be in registry, out of registry, or wherein a portion of the embossed and printed patterns are in registry and a portion of the embossed and printed patterns are out of registry. In addition, the matte or textured finish 240 capable of providing the anti-static polymeric embossed film 232 with a texture and appearance simulating the texture and appearance of paper can be achieved by extruding a polymeric resin onto a matted or textured chill roll. Thereafter, the anti-static polymeric embossed film 232 having a texture and appearance simulating the texture and appearance of paper can be cut in a conventional manner to provide the anti-static polymeric embossed ribbon material 230.

**[0104]** Any polymeric film capable of being textured or otherwise modified to provide the anti-static polymeric embossed film 232 with a texture and appearance simulating the texture and appearance of paper can be employed in the formulation of the anti-static polymeric embossed ribbon material 230. For example, the anti-static polymeric embossed film 232 employed to produce the anti-static polymeric embossed ribbon material 230 can be polypropylene film having a thickness of from about 0.1 mil to about 30 mill, and more desirably of from about 0.5 mill to about 10 mill, or an expanded core polymeric film having a thickness of from about 0.6 mil to about 10 mil.

**[0105]** Changes may be made in the construction and the operation of the various components, elements and assemblies described herein or in the steps

or the sequence of steps of the methods described herein without departing from the spirit and scope of the invention as defined in the following claims.